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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/786,911

02/25/2004

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SHEEHAN I

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50525 7590 11/23/2007

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1526 SPRUCE STREET

SUITE 302

BOULDER, CO 80302

EXAMINER

HAILU, KIBROM T

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

11/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/786,911

Applicant(s)

SHEEHAN, MICHAEL J.

Examiner

Kibrom T. Hailu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed received on September 27, 2007 have been fully considered but they are not persuasive because the cited reference discloses the rejected claims as set forth in the previous Office Action. Therefore, the finality of this Office Action is deemed proper.

The arguments on page 8 and 9 of the Remarks are not persuasive, and thus the claims are not patentable in view of the following disclosure.

Regarding claims 1 and 11, the applicants argue, "the computers in Bahl each have the appropriate code (i.e., a computer program) to update their data sets... Bahl only describes replicating a command that is executed by a computer program that already exists on each computer", "Bahl does not teach a command that replicates itself... computer at which the command is entered replicates the command... commands in Bahl are not self-replicating and thus the commands are not codes". The Applicants further argue, "Bahl already have update paths established... Bahl does not teach or describe establishing the communication channels by executing the replicated code" and "Bahl does not describe receiving data in the second node from first node over the communication channel and executing the second code in the second node to handle the data, and receiving the data in the third node from the second node over the communication channel and executing the third code in the third node to handle the data."

First, the Examiner submits both Bahl and the Applications disclose the computers or nodes execute the codes or command to be replicated. The replication occurs by executing the code or the command in the computer, and the specification clearly describes a node or computer

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executes the code to replicate itself to generate another code that is the same as the first code (e.g. see page 5, lines 6-8, 18-19, 31-33; page 6, lines 17-19, etc). The claim doesn't use the term "self replicating". Even if it says, "self replicating", it wouldn't matter because it doesn't happen without the code being executed by the computer. The Examiner also submits, in the specification, code is defined as any instructions executable by a processor (page 5, lines 4-6). As the Applicants also admitted, a command is also an instruction (claim 1, 26, 30 and 30). Note also that the claims do not say or limit that the code is software. Bahl clearly discloses replicating a database from one computer to another computer (Figs. 3 and 4; col. 4, lines 14-36; col. 4, line 56-col. 5, line 2). The replication can be a complete replication or an entire change to the existing database. And we know that a database includes any files, including software programs. Clearly the replicated database also includes command because Bahl explains that replicated database is executed by each of the computers. Applicants further argue the command is already existed in all of the computers. This is not true because Bahl clearly discloses the command is replicated from one computer to another (please, see col. 1, lines 40-44; col. 4, lines 53-55). The important thing here that to hierarchically replicate the same database, which of course includes a command that is executable, to each of the computers in a network without human intervention or physically present to make the replication; and avoid to individually transfer any kind of file. This is what both Bahl and the Applicants try to solve (see, Background of the Invention or both Bahl and the Applicants).

Second, the Applicants argue that Bahl does not teach or describe establishing the communication channels by executing the replicated code. The argument is not persuasive because Bahl also says, "the computers of the network 200 is replicated along one or more

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replication paths 210, 212, 214, 216, 220, 222, 224, 228 and 230 until it is propagated throughout the entire network...replication messages, labeled 232, along the replication paths 224 and 210 to the computers 208 and 204 respectively” and went on to say “sends a replication message 232 to computer 226 over the replication path 228. A replication message 232 also reaches the computer 206 through either the replication path 222 or 212 depending on which of the computers 208 and 204 is able to provide the replication message first” (col. 5, lines 5-18). The Examiner also submits that “database are sent along update paths 112, 114, 116 and 118” doesn’t mean that the replicated database always use the same path as before. However, “update” can also include a new path. That is, updating a path doesn’t only indicate old paths, but also include establishing a new path. As applied above, Bahl discloses, the paths based or depend on which of the computers is able to provide the replication database first. Meaning the replicated database may use different route than before. As best understood by the Examiner, that is what the Applicants disclose. That is, the file is executed in one computer, and from that decided which path would be used to get to the second computer. In short, it is clear that Bahl discloses establishing or replication paths to transmit or transfer the replicated file and command.

Third, as explained above, Bahl discloses sending/receiving a replicated message or data form/to one computer to another, and the replicated command is executed to handle the message (e.g. claim 33).

Therefore, Bahl discloses a communication network to transfer the same data by replicating between multiple computers of the network. Thus the Applicants argument is not persuasive, and the finality of this Office Action is proper.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bahl (US 6,782,398 B1).

Regarding claim 1 and 11, Bahl discloses a method and communication network that provides to transfer data between nodes of the communication network, the communication network comprising a first node that includes first code (Abstract), the method comprising the steps of: executing the first code in the first node to establish a communication channel with a second node, replicate the first code to generate second code, and provide the second code to the second node over the communication channel (Figs. 2-8, 10, 13, 15-17; col. 4, lines 59-63; col. 5, lines 3-12, 24-28); executing the second code in the second node to establish the communication channel with a third node, replicate the second code to generate third code, and provide the third code to the third node over the communication channel (col. 4, lines 63-67; col. 5, lines 12-15, 3-12); receiving data in the second node from the first node over the communication channel and executing the second code in the second node to handle the data (col. 5, lines 24-28, 36-38); and receiving the data in the third node from the second node over the communication channel and executing the third code in the third node to handle the data (col. 5, lines 24-28, 36-38, illustrates each of the devices or computers receives replicated data, and cause the computers to execute the

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command. Meaning the command is recordable in the computer and executes the data. Otherwise there is not point of replicating and transmitting the command to each of the computers in a hierarchical way. The main point here that the command or message or software is replicating itself, and copy or transmit to at least one of neighboring computer. And obviously, any data can be replicated in the same way and be executed by the command or software).

Regarding claim 2 and 12, Bahl discloses the steps of: executing the second code in the second node to establish the communication channel with a fourth node, replicate the second code to generate fourth code, and provide the fourth code to the fourth node over the communication channel (Figs. 5-7, 10, 13, 15-17; col. 4, lines 63-67; col. 5, lines 15-18); and receiving the data in the fourth node from the second node over the communication channel and executing the fourth code in the fourth node to handle the data (col. 5, lines 24-28, 36-38, illustrates each of the devices or computers receives replicated data, and cause the computers to execute the command. Meaning the command is recordable in the computer and executes the data. Otherwise there is not point of replicating and transmitting the command to each of the computers in a hierarchical way. The main point here that the command or message or software is replicating itself, and copy or transmit to at least one of neighboring computer. And obviously, any data can be replicated in the same way and be executed by the command or software).

Regarding claim 3, 4, 5, 13, 14 and 15, Bahl discloses the step of executing the second code in the second node to handle the data further comprises the step of: executing the second code in the second node to replicate the data received from the first node, and route the replicated data to a payload process in the second node, executing the payload process in the second node to receive the replicated data and process the replicated data locally on the second node, and

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executing the payload process in the second node to generate output data (col. 4, lines 63-67; col. 5, lines 12-15; col. 5, lines 24-28, 36-38; col. 1, lines 42-46, explain the execution of the message or the command and/ or the data, and replicate it/them to the at least one of the neighboring computer(s) or device(s). Note that since it is replicated in one computer, outputted from the computer and transmitted on the next computer(s), it is obvious for a person having ordinary skills in the art to realize the presence of a payload process for receiving and outputting the message/command/data).

Regarding claim 6 and 16, Bahl discloses executing the second code in the second node to multiplex the output data and status information from the second node (col. 4, lines 63-67; col. 5, lines 12-15; col. 5, lines 24-28, 36-38) and forward the output data and the status information over the communication channel to the first node (see Figs. 5-7).

Regarding claim 7 and 17, Bahl discloses receiving control information in the second node from the first node over the communication channel and using the control information in the second node to handle the data (col. 4, lines 63-67; col. 5, lines 12-15; col. 5, lines 24-28, 36-38. Note also that the command can be thought of the control information because it carries replication and execution information or parameters, see col. 6, lines 45-63; col. 8, lines 19-32).

Regarding claim 8 and 18, Bahl discloses routing the data and the control information from the second node to the third node over the communication channel (col. 4, lines 63-67; col. 5, lines 12-15, 3-12).

Regarding claim 9 and 19, Bahl discloses the first code comprises a streaming worm (col. 1, lines 42-43; col. 4, lines 40-44, illustrate each of the computers receives replicating command or message. The word "worm" or "sworm" is well known for explaining a virus code

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that replicates itself from computer to computer. Similarly, the command or message replicates itself from device to device, thus the replicating command is as the worm).

Regarding claim 10 and 20, Bahl discloses the second node is remote from the first node and the third node is remote from the second node (col. 3, lines 28-30, 54-60).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kibrom T. Hailu whose telephone number is (571)270-1209. The examiner can normally be reached on Monday-Thursday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kth

11/19/07


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER